#### **Strand 1: Creativity and Innovation**

This strand requires that students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology.

#### **Concept 1: Knowledge and Ideas**

Use technology to generate knowledge and new ideas

Performance Objectives	Curriculum Connections	Explanations and Examples
PO 1: Evaluate information to generate ideas.	Science 01-S1C1-01 Generate ideas through prewriting activities (e.g., brainstorming, webbing, drawing, writer's notebook, group discussion).  Science 01-S4C1-03 Identify observable similarities and differences (e.g., number of legs, body coverings, size) between/among different groups of animals.  1.SL.1 Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.  a. Follow agreed-upon rules for discussions (e.g., listening to others with care. speaking one at a time about the topics and texts under discussion).	Explanation: Use digital information and form questions and ideas from that information.  Examples: After viewing a video on elephants and their habitat, students will use digital tools such as: Graphic organizers Graphic Organizer  Concept maps bubbl.us  Digital-rich resources to record future questions as well as write what they've learned from the video.  Interactive whiteboard activities Interactive Whiteboard Activities

Performance Objectives	Curriculum Connections	Explanations and Examples
	<ul> <li>b. Build on others_ talk in conversations by responding to the comments of others through multiple exchanges.</li> <li>c. Ask questions to clear up any confusion about the topics and texts under discussion.</li> <li>1.SL.2 Ask and answer questions about key details in a text read aloud or information presented orally or through other media. </li> <li>1.SL.6 Produce complete sentences when appropriate to task and situation. (See grade 1 Language standards 1 and 3 on page 26 for specific expectations.) </li> <li>1.W.5 With guidance and support from adults, focus on a topic, respond to questions and suggestions from peers, and add details to strengthen writing as needed. 1.W.6 With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.</li> </ul>	

#### **Strand 1: Creativity and Innovation**

#### **Concept 2: Models and Simulations**

Use digital models and simulations to examine real-world connections, explore complex systems and issues, and enhance understanding.

Performance Objectives	Curriculum Connections	Explanations and Examples
PO 1: Identify elements of a digital model or simulation.	Science 01-S3C2-01 Identify various technologies (e.g., automobiles, radios, refrigerators) that people use.  1.OA.6 Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 - 4 = 13 - 3 - 1 = 10 - 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 - 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13).  1.NBT.2 Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases:	Explanation: Use interactive resources to practice skills and identify various technologies (e.g., automobiles, radios, refrigerators) and their components.  Math Examples: Macaroni Math: How Many Left? Students write story problems and find differences using sets, including subtracting all and subtracting zero. They record the differences in a chart.  Comparing Connecting Cubes Five models of subtraction provide students a structure for developing a rich conceptual schema for subtraction.  Investigating Triangles Students identify characteristics of triangles, manipulate electronic geoboards to construct triangles, and name the triangles' relative locations.  National Library of Virtual Manipulatives  Base Block Addition ***  *** Note: The Base Block Applets may function better on some systems.

Performance Objectives	Curriculum Connections	Explanations and Examples
	<ul> <li>a. 10 can be thought of as a bundle of ten ones _ called a _ten</li> <li>b. The numbers from 11 to 19 are composed of a tenand one, two, three, four, five, six, seven, eight, or nine ones.</li> <li>c. The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).</li> </ul>	
	1.NBT.4  Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.  1.NBT.6  1.NBT.6  1.NBT.6 Use place value understanding and properties of operations to add and	

Performance Objectives	Curriculum Connections	Explanations and Examples
	subtract. Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.  1.MD.4  Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.  1.G.1  Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size) for a wide variety of shapes; build and draw shapes to possess defining attributes.  MP.5  Use appropriate tools strategically.  MP.7  Look for and make use of structure.	

Performance Objectives	Curriculum Connections	Explanations and Examples
PO 2: Explore and identify models and simulations.	Science 01-S4C3-02 Compare the habitats (e.g., desert, forest, prairie, water, underground) in which plants and animals live.  1.NBT.1 Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.  MP.2 Reason abstractly and quantitatively.  MP.7 Look for and make use of structure.  MP.8 Look for and express regularity in repeated reasoning.	Explanation: Use interactive resources to make observations and analyze changing situations in a model or simulation.  Science Examples: Compare the habitats (e.g., desert, forest, prairie, water, underground) in which plants and animals live. Google Search: "Build an online habitat" Build a Habitat Great Habitat Matchup  Math Examples:  Students explore sets of 19 and 20. They count up to 20, construct and decompose sets up to 20, and record the decompositions. Let's Count to 20  Students discuss, describe, read, and write about numbers they find in familiar real-world situations. Numbers and Language Base Blocks ***  *** Note: The Base Block Applets may function better on some systems.
PO 3: Identify a system.	Science 01-S4C3-02 Compare the habitats (e.g., desert, forest, prairie, water, underground) in which plants and animals live.  1.OA.3	Explanation: Compare and contrast systems to identify similarities and differences.  Science Examples: Compare the habitats (e.g., desert, forest, prairie, water, underground) in

Performance Objectives	Curriculum Connections	Explanations and Examples
	Apply properties of operations as strategies to add and subtract. Examples: If 8 + 3 = 11 is known, then 3 + 8 = 11 is also known. (Commutative property of addition.) To add 2 + 6 + 4, the second two numbers can be added to make a ten, so 2 + 6 + 4 = 2 + 10 = 12. (Associative property of addition.) (Students need not use formal terms for these properties.)  MP.2  Reason abstractly and quantitatively.  MP.7  Look for and make use of structure.  MP.8  Look for and express regularity in repeated reasoning.	which plants and animals live. Google Search: "Build an online habitat".  Build a Habitat Great Habitat Matchup  Math Examples: Students explore the four models of addition (counting, sets, number line, and balanced equations) using dominoes.  Do It With Dominoes

#### Grade 1

## **Strand 1: Creativity and Innovation**

#### **Concept 3: Trends and Possibilities**

Use technology to forecast trends and possibilities.

Performance Objectives	Curriculum Connections	Explanations and Examples
PO 1: Recognize and create patterns.	<ul> <li>1.G.1 Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size) for a wide variety of shapes; build and draw shapes to possess defining attributes.</li> <li>MP.7 Look for and make use of structure.</li> <li>MP.2 Reason abstractly and quantitatively.</li> <li>MP.8 Look for and express regularity in repeated reasoning.</li> <li>1.RF.3 Know and apply grade-level phonics and word analysis skills in decoding words.</li> <li>e. Decode two-syllable words following basic patterns by breaking the words into syllables.</li> </ul>	Explanation: Students look for and create patterns in language and numbers.  Math Examples:  • Students sort objects and observe the properties others use for sorting. By labeling their sorts, students connect number with sets of objects that compose the pattern. Finding Properties for Sorting  Language Arts Examples:  • Students listen to poems and rhymes, clap out syllables, and sing along with familiar tunes.  Play with Words - Rhyme and Verse  • Students write common letter strings. Pictures are used to help students visualize the word meanings.  SMART Exchange - Spelling Patterns

Performance Objectives	Curriculum Connections	Explanations and Examples
	1.L.2  Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.  d. Use conventional spelling for words with common spelling patterns and for frequently occurring irregular words.	



## **Strand 1: Creativity and Innovation**

#### **Concept 4: Original Works**

Use technology to create original works in innovative ways.

Performance Objectives	Curriculum Connections	Explanations and Examples
PO 1: Use digital creativity tools to develop ideas and create a project.	1.RI.1 Ask and answer questions about key details in a text.  1.RI.4 Ask and answer questions to help determine or clarify the meaning of words and phrases in a text.  1.OA.3 Apply properties of operations as strategies to add and subtract. Examples: If 8 + 3 = 11 is known, then 3 + 8 = 11 is also known. (Commutative property of addition.) To add 2 + 6 + 4, the second two numbers can be added to make a ten, so 2 + 6 + 4 = 2 + 10 = 12. (Associative property of addition.) (Students need not use formal terms for these properties.)  1.OA.4 Understand subtraction as an unknown-addend problem. For example, subtract 10 - 8 by finding the number that makes 10	Explanation: Organize ideas and design and produce multimedia projects.  Language Arts Examples: Use presentation software (e.g. Keynote, PowerPoint) or online tools to develop ideas and create original stories through Writer's Workshop. Online Story Makers Wallwisher  Math Examples: Students use connecting cubes to explore the five models of subtraction (counting, sets, number line, balanced equations, and inverse of addition). The lessons focus on the comparative mode of subtraction. Comparing Connection Cubes

Performance Objectives	Curriculum Connections	Explanations and Examples
	when added to 8.  1.NBT.2  Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases:  a. 10 can be thought of as a bundle of ten ones _ called a _ten  b. The numbers from 11 to 19 are composed of a tenand one, two, three, four, five, six, seven, eight, or nine ones.  c. The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).	
	1.NBT.4  Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit	

Performance Objectives	Curriculum Connections	Explanations and Examples
	numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.	
	MP.2 Reason abstractly and quantitatively.	
	MP.7 Look for and make use of structure.	
	1.W.2 Write informative/explanatory texts in which they name a topic, supply some facts about the topic, and provide some sense of closure.	
	1.W.3 Write narratives in which they recount two or more appropriately sequenced events, include some details regarding what happened, use temporal words to signal event order, and provide some sense of closure.	
	1.W.6 With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.	

Performance Objectives	Curriculum Connections	Explanations and Examples
PO 2: Use digital collaborative tools to develop collective ideas.	1.W.2 Write informative/explanatory texts in which they name a topic, supply some facts about the topic, and provide some sense of closure.  1.W.7 Participate in shared research and writing projects (e.g., explore a number of _howto_ books on a given topic and use them to write a sequence of instructions).  1.W.8 With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.  1.SL.5 Add drawings or other visual displays to descriptions when appropriate to clarify ideas, thoughts, and feelings.  1.SL.6 Produce complete sentences when appropriate to task and situation. (See grade 1 Language standards 1 and 3 on page 26 for specific expectations.)  1.MD.4 Organize, represent, and interpret data	Explanation: Students use digital collaborative tools which can include, but are not limited to: drawing programs, digital photography, podcasts, audio clips, digital storytelling, to develop ideas in collaboration with other students.  Language Arts Examples: Students will post ideas for classroom projects such as, Voice Thread Glogster.com/ Wallwisher Word Processing Program  Math Examples: • Students apply what they know about comparison subtraction by constructing bar graphs and using them to answer questions. Bar Graph Investigations  • Students learn to pose mathematical questions, gather data about eye color from their classmates and organize this data to answer questions. Eve to Eve  • Free Online Pictograph Program  • Teacher Tool for Collaborative Projects: This assessment tool, from a ReadWriteThink lesson, offers suggested criteria for assessing a collaborative class book about mathematical sets. Assessment Criteria- Class Book

Performance Objectives	Curriculum Connections	Explanations and Examples
	with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.  MP.2 Reason abstractly and quantitatively.  MP.3 Construct viable arguments and critique the reasoning of others.  MP.4 Model with mathematics.  MP.5 Use appropriate tools strategically.  MP.6 Attend to precision.	



#### **Strand 2: Communication and Collaboration**

This strand requires students to use digital media and environments to communicate and collaborate with others.

#### **Concept 1: Effective Communications and Digital Interactions**

Communicate and collaborate with others employing a variety of digital environments and media.

Performance Objectives	Curriculum Connections	Explanations and Examples
PO 1: Communicate with others as a whole class using digital tools.	Science 01-S1C4-01 Communicate with other groups to describe the results of an investigation.  1.W.3 Write narratives in which they recount two or more appropriately sequenced events, include some details regarding what happened, use temporal words to signal event order, and provide some sense of closure.  1.SL.1 Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.  a. Follow agreed-upon rules for discussions (e.g., listening to others with care. speaking one at a time about the topics and texts under discussion).  b. Build on others_talk in	Explanation: Students use digital and/or online tools to communicate, in a group, with others. This could include, but is not limited to, options such as: blogs, wikis, video conferencing and email.  Language Arts Examples:  Exchange information using Skype with another classroom. Skype in the Classroom  Created by teachers for use in the classroom, Kidblog provides teachers with the tools to help students safely navigate the digital – and increasingly social – online landscape. Kidblogs  Math Examples: Using a document camera- students can communicate with others as a whole class using objects with a document camera- measuring, story problems and shapes.

Performance Objectives	Curriculum Connections	Explanations and Examples
	conversations by responding to the comments of others through multiple exchanges.	
	c. Ask questions to clear up any confusion about the topics and texts under discussion.	
	1.SL.6 Produce complete sentences when appropriate to task and situation. (See grade 1 Language standards 1 and 3 on page 26 for specific expectations.)  1.OA.1 Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.	
	1.OA.2 Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.	

Performance Objectives	Curriculum Connections	Explanations and Examples
	1.OA.7  Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. For example, which of the following equations are true and which are false? 6 = 6, 7 = 8 _ 1, 5 + 2 = 2 + 5, 4 + 1 = 5 + 2.  1.MD.1  Order three objects by length; compare the lengths of two objects indirectly by using a third object.  1.MD.3  Tell and write time in hours and half-hours using analog and digital clocks.  1.MD.4  Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.  MP.1  Make sense of problems and persevere in solving them.	

Performance Objectives	Curriculum Connections	Explanations and Examples
PO 2: Identify and demonstrate safe and appropriate behavior when using digital environments.	Social Studies 01-S3C4-01 Identify examples of responsible citizenship in the school setting and in stories about the past and present.  Social Studies 01-S3C4-02 Describe the rights and responsibilities of citizenship: elements of fair play, good sportsmanship, and the idea of treating others the way you want to be treated importance of participation and cooperation in a classroom and community why there are rules and the consequences for violating them responsibility of voting (every vote counts)  Social Studies 01-S3C4-03 Discuss the importance of students contributing to a community (e.g., helping others, working together, cleaning up the playground.)  1.W.2 Write informative/explanatory texts in which they name a topic, supply some facts about the topic, and provide some sense of closure.	Explanation: Students need to understand the school district's Acceptable Use Policy (AUP) as well as be able to understand and explain their classroom rules of safe technology use. Students should also know how to report any problem or unsafe digital situation to their teacher or another appropriate adult.  Examples:  Review and discuss Acceptable Use Policy.  Demonstrate respect for the digital work of others.  Demonstrate respect for opinions of others posted online.  Create and abide by classroom rules for using technology at home and at school. Discuss danger in using personal name, address, phone number or picture online.

Performance Objectives	Curriculum Connections	Explanations and Examples
	1.W.7  Participate in shared research and writing projects (e.g., explore a number of _howto_ books on a given topic and use them to write a sequence of instructions).  1.W.8  With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.	

#### **Strand 2: Communication and Collaboration**

#### **Concept 2: Digital Solutions**

Contribute to project teams to produce original works or solve problems.

Performance Objectives	Curriculum Connections	Explanations and Examples
PO 1: Participate in a classroom learning project using digital collaborative resources.	Science 01-S1C4-01 Communicate with other groups to describe the results of an investigation.  1.W.5 With guidance and support from adults, focus on a topic, respond to questions and suggestions from peers, and add details to strengthen writing as needed.  1.W.6 With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.  1.W.8 With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.  1.SL.1 Participate in collaborative conversations with diverse partners about grade 1 topics	Explanation: Use a software program or online resource to communicate among classes or groups within a class.  Language Arts Examples: Students will draw pictures of animals and publish their work to a classroom web page to share with others. Kidblog Digital Tools for Teachers  Science Examples: Bucket Buddies Square of Life

Performance Objectives	Curriculum Connections	Explanations and Examples
	and texts with peers and adults in small and larger groups.  a. Follow agreed-upon rules for discussions (e.g., listening to others with care. speaking one at a time about the topics and texts under discussion).  b. Build on others_ talk in conversations by responding to the comments of others through multiple exchanges.  c. Ask questions to clear up any confusion about the topics and texts under discussion.	
	1.SL.2 Ask and answer questions about key details in a text read aloud or information presented orally or through other media.  1.SL.3 Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood.  1.SL.4 Describe people, places, things, and events with relevant details, expressing ideas and	

Performance Objectives	Curriculum Connections	Explanations and Examples
	feelings clearly.	
	1.SL.5 Add drawings or other visual displays to descriptions when appropriate to clarify ideas, thoughts, and feelings.	
	1.SL.6 Produce complete sentences when appropriate to task and situation. (See grade 1 Language standards 1 and 3 on page 26 for specific expectations.)	

Grade 1

#### **Strand 2: Communication and Collaboration**

#### **Concept 3: Global Connections**

Create cultural understanding and global awareness by interacting with learners of other cultures.

Performance Objectives	Curriculum Connections	Explanations and Examples
PO 1: Participate as a class in communication at a distance.	Social Studies 01-S4C4-01 Discuss elements of cultural (e.g., food, clothing, housing, sports, holidays) of a community in areas studied (e.g., local community, Arizona, Egypt).  1.SL.1 Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.  a. Follow agreed-upon rules for discussions (e.g., listening to others with care. speaking one at a time about the topics and texts under discussion).  b. Build on others_ talk in conversations by responding to the comments of others through multiple exchanges.  c. Ask questions to clear up any confusion about the topics and texts under discussion.	Explanation: Participate in an information exchange with students from other areas of the United States or other countries, using online communication tools.  Examples:  • Edmodo is a blogging platform that teachers and students can use for distance communication.  Edmodo  • Skype provides free online telephone and video-conferencing tools that allow students to share current classroom events and communicate with students in different locations in real time.  Skype in the Classroom

Performance Objectives	Curriculum Connections	Explanations and Examples
	1.SL.3  Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood.	



#### **Strand 3: Research and Information Literacy**

This strand requires that students apply digital tools to gather, evaluate, and use information.

#### **Concept 1: Planning**

Plan strategies to guide inquiry, using technology.

Performance Objectives	Curriculum Connections	Explanations and Examples
PO 1: Generate key words and synonyms for a search.	1.RI.2 Identify the main topic and retell key details of a text.  1.RI.10 With prompting and support, read informational texts appropriately complex for grade 1.	Explanation: In a group discussion, brainstorm key words that can be used to search a database or website for specific information.  Examples: Use online dictionary or other online tools to generate synonyms and generate ideas for a search. Quintura for Kids Ivy's Search Engine Resources for Kids Graphic Organizers
PO 2: Explore information and online sources.	Social Studies 01-S2C1-03 Use primary source materials (e.g., photos, artifacts, maps) to study people and events from the past.  1.RI.1 Ask and answer questions about key details in a text.  1.RI.2 Identify the main topic and retell key	Explanation: Identify which technology tools can be useful in gathering information on a subject.  Examples for teacher to organize preselected websites or topics:  Digital Tools  Kidsclick  Library of Congress - Teaching with Primary Sources  Library of Congress - Kids and Families  A large compendium of organized resources, including a Primary Source list.  Ventana Vista Library

Performance Objectives	Curriculum Connections	Explanations and Examples
	details of a text.  1.RI.10  With prompting and support, read informational texts appropriately complex for grade 1.	



## **Strand 3: Research and Information Literacy**

#### **Concept 2: Processing**

Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.

Performance Objectives	Curriculum Connections	Explanations and Examples
PO 1: Conduct a search using multiple Keywords.	1.RI.1 Ask and answer questions about key details in a text.  1.RI.2 Identify the main topic and retell key details of a text.  1.RI.3 Describe the connection between two individuals, events, ideas, or pieces of information in a text.  1.RI.4 Ask and answer questions to help determine or clarify the meaning of words and phrases in a text.  1.W.7 Participate in shared research and writing projects (e.g., explore a number of _howto_ books on a given topic and use them to write a sequence of instructions).  1.W.8	Explanation: Select relevant information from teacher selected, technology resources.  Examples: Bookmark files and keywords when searching for information on a given topic.  Suggested sites for students to search: Awesome Library Ivy's Search Engine Resources for Kids Searchy Pants

Performance Objectives	Curriculum Connections	Explanations and Examples
	With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.	
PO 2: Use preselected sources	Social Studies 01-S1C10-01 Use information from written documents, oral presentations, and the media to discuss current local and state events.  1.RI.1 Ask and answer questions about key details in a text.  1.RI.2 Identify the main topic and retell key details of a text.  1.RI.3 Describe the connection between two individuals, events, ideas, or pieces of information in a text.  1.RI.4 Ask and answer questions to help determine or clarify the meaning of words and phrases in a text.  1.W.2	Explanation: Using teacher-selected digital resources, students will gather and organize information on a selected topic.  Examples:  • Suggested sites for students to search: Awesome Library Ivy's Search Engine Resources for Kids  Teacher Resources:  • Create or use a webquest WebQuest  • Teachers can create a De-Li-Cious account and save web resources to share with students. Delicious

Performance Objectives	Curriculum Connections	Explanations and Examples
	Write informative/explanatory texts in which they name a topic, supply some facts about the topic, and provide some sense of closure.  1.W.7 Participate in shared research and writing projects (e.g., explore a number of _howto_ books on a given topic and use them to write a sequence of instructions).  1.W.8 With guidance and support from adults, recall information from experiences or	
PO 3: Differentiate between a fact, untruth, and an opinion.	gather information from provided sources to answer a question.  Social Studies 01-S1C10-01 Use information from written documents, oral presentations, and the media to discuss current local and state events.  1.RI.9 Identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures).	Explanation: When discussing characteristics of organisms, students will use digital creativity or collaborative tools to share facts, opinions as well as untruths.  Examples: Monkeys are mammals. (Fact) Monkeys are the cutest animals. (Opinion) Monkeys have hidden wings and can fly at night. (Untruth) Tina's World of Make Believe Real or Makebelieve
	1.RL.5	Resources Specifically for teachers:

Performance Objectives	Curriculum Connections	Explanations and Examples
	Explain major differences between books that tell stories and books that give information, drawing on a wide reading of a range of text types.  1.W.2 Write informative/explanatory texts in which they name a topic, supply some facts about the topic, and provide some sense of closure.  1.W.3 Write narratives in which they recount two or more appropriately sequenced events, include some details regarding what happened, use temporal words to signal event order, and provide some sense of closure.	Real Make Believe Digital Tools for Teachers
PO 4: Sort information into major topics.	Social Studies 01-S2C1-03 Use primary source materials (e.g., photos, artifacts, maps) to study people and events from the past.  1.RI.1 Ask and answer questions about key details in a text.	Explanation: Students will organize information using a table, digital template or online tool with assistance.  Examples: During a whole group activity, students will use a Venn diagram from a digital resource to organize information gathered about desert wildlife.  Language Arts Examples:

Performance Objectives	Curriculum Connections	Explanations and Examples
	1.RI.2 Identify the main topic and retell key details of a text.	Kidspiration Eduplace Graphic Organizers Interactive Whiteboard Activities
	1.RI.10 With prompting and support, read informational texts appropriately complex for grade 1.	
	1.W.2 Write informative/explanatory texts in which they name a topic, supply some facts about the topic, and provide some sense of closure.	
	1.W.8 With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.	
PO 5: Identify and follow ethical behaviors when using resources	Social Studies 01-S2C1-03 Use primary source materials (e.g., photos, artifacts, maps) to study people and events from the past.	Explanation: The students will understand that there are rules when using the Internet for information. Students will comply with district Acceptable Use Policy (AUP).
	1.W.2 Write informative/explanatory texts in	Examples: The teacher will lead the class in a discussion referencing the use of information resources. This information will then be made into a classroom

Grade 1

Performance Objectives	Curriculum Connections	Explanations and Examples
	which they name a topic, supply some facts about the topic, and provide some sense of closure.	poster for reference using publishing software. <u>Information Resources</u>
	1.W.7  Participate in shared research and writing projects (e.g., explore a number of _howto_ books on a given topic and use them to write a sequence of instructions).	
	1.W.8 With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.	
	1.SL.1 Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.	
	c. Ask questions to clear up any confusion about the topics and texts under discussion.	
	1.SL.2 Ask and answer questions about key details in a text read aloud or information presented orally or through other media.	



#### Strand 4: Critical Thinking, Problem Solving, Decision Making

This strand requires students to use critical thinking, problem solving, and decision making to manage projects using digital tools and resources.

#### **Concept 1: Investigation**

Identify and define authentic problems and significant questions for investigations.

Performance Objectives	Curriculum Connections	Explanations and Examples
PO 1: Collaborate as a class or small group to select an essential question to research using digital	Science 01-S1C1-PO1 Observe, ask questions, and make predictions.	Explanation: Use a software program or online resource to communicate among classes or groups within a class. Identify which technology tools and resources can be used to gather observations of a subject.
resources.	Science 01-S1C2-02 Participate in guided investigations in life, physical, and Earth and space sciences.	Science Examples: Student can explore a variety of science topics and identify essential questions. Foss Web
	1.RI.1 Ask and answer questions about key details in a text.  1.RI.2	
	I.RI.2 Identify the main topic and retell key details of a text.  1.RI.4	
	Ask and answer questions to help determine or clarify the meaning of words and phrases in a text.	

Performance Objectives	Curriculum Connections	Explanations and Examples
	1.SL.1 Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.  a. Follow agreed-upon rules for discussions (e.g., listening to others with care. speaking one at a time about the topics and texts under discussion).  b. Build on others_ talk in conversations by responding to the comments of others through multiple exchanges.  c. Ask questions to clear up any confusion about the topics and texts under discussion.	
	1.SL.2 Ask and answer questions about key details in a text read aloud or information presented orally or through other media.  1.SL.3 Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood.	

Performance Objectives	Curriculum Connections	Explanations and Examples
	1.SL.6 Produce complete sentences when appropriate to task and situation. (See grade 1 Language standards 1 and 3 on page 26 for specific expectations.)	



#### Strand 4: Critical Thinking, Problem Solving, Decision Making

#### **Concept 2: Exploring Solutions**

Plan and manage activities to develop solutions to answer a question or complete a project.

Performance Objectives	Curriculum Connections	Explanations and Examples
PO 1: Participate as a group to manage a learning project and identify sources.	Science 01-S1C2-04 Record data from guided investigations in an organized and appropriate format (e.g., lab book, log, notebook, chart paper).	Explanation: Organize information using digital tools and record sources used in learning project. Social Studies
	Social Studies 01-S2C1-03 Use primary source materials (e.g., photos, artifacts, maps) to study people and events from the past.	<ul> <li>Examples:</li> <li>Students can gather information from Primary Sources and organize into a story.</li> <li>A large compendium of organized resources, including a Primary Source list.</li> <li>Ventana Vista Library</li> </ul>
	1.RI.1 Ask and answer questions about key details in a text.	Library of Congress - Kids and Families
	1.RI.2 Identify the main topic and retell key details of a text.  1.RI.4 Ask and answer questions to help	Library of Congress - Teaching with Primary Sources  Math Examples: Using a spread sheet spreadsheet program like EXCEL, students can organize information and data from research or class projects.
	determine or clarify the meaning of words and phrases in a text.	Tools for Organizing information Examples: Eduplace Graphic Organizers

Performance Objectives	Curriculum Connections	Explanations and Examples
	<ul> <li>1.SL.1 Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.  a. Follow agreed-upon rules for discussions (e.g., listening to others with care. speaking one at a time about the topics and texts under discussion).</li> <li>b. Build on others_ talk in conversations by responding to the comments of others through multiple exchanges.</li> <li>c. Ask questions to clear up any confusion about the topics and texts under discussion.</li> </ul>	Collaboration Tools Examples: Voice Thread Wall Wisher Glogster Kid Blog Digital Tools for Teachers
	1.SL.5  Add drawings or other visual displays to descriptions when appropriate to clarify ideas, thoughts, and feelings.  1.SL.6  Produce complete sentences when appropriate to task and situation. (See grade 1 Language standards 1 and 3 on page 26 for specific expectations.)	

Performance Objectives	Curriculum Connections	Explanations and Examples
	1.MD.4 Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.  1.W.2 Write informative/explanatory texts in which they name a topic, supply some facts about the topic, and provide some sense of closure.  1.W.7 Participate in shared research and writing projects (e.g., explore a number of _howto_ books on a given topic and use them to write a sequence of instructions).  1.W.8 With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.	
PO 2: Propose solutions by discussing data	Science 01-S1C1-01 Observe, ask questions, and make predictions.	Explanation: Students will analyze and examine solutions to various experiments or data sets using technology tools to and communicate conclusions.

Performance Objectives	Curriculum Connections	Explanations and Examples
	Science 01-S1C2-02 Participate in guided investigations in life, physical, and Earth and space sciences.  Social Studies 01-S4C6-01 Use geography concepts and skills (e.g., recognizing patterns, mapping, graphing) to find solutions for problems (e.g., trash, leaky faucets, bike paths, traffic patterns) in the local environment.  MP.1 Make sense of problems and persevere in solving them.  1.MD.4 Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.  1.SL.1 Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small	Math Examples:  Do it With Dominoes  This lesson builds on previous lessons and encourages students to explore another model for addition, the familiar set model. Bar Graph Investigations  Data Analysis Tools National Virtual Library of Manipulatives - K-2  Language Arts Examples: Creating Class Rules: A Beginning to Creating Community

Performance Objectives	Curriculum Connections	Explanations and Examples
	and larger groups.  a. Follow agreed-upon rules for discussions (e.g., listening to others with care. speaking one at a time about the topics and texts under discussion).  b. Build on others_ talk in conversations by responding to the comments of others through multiple exchanges.  c. Ask questions to clear up any confusion about the topics and texts under discussion.	

#### **Strand 5: Digital Citizenship**

This strand requires students to understand human, cultural, and societal issues related to technology practice and ethical behavior.

#### **Concept 1: Safety and Ethics**

Advocate and practice safe, legal, and responsible use of information and technology.

Performance Objectives	Curriculum Connections	Explanations and Examples
PO 1: Recognize and discuss when it is appropriate to use a personal digital device	Social Studies 01-S3C4-01 Identify examples of responsible citizenship in the school setting and in stories about the past and present.  1.SL.1 Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.  a. Follow agreed-upon rules for discussions (e.g., listening to others with care. speaking one at a time about the topics and texts under discussion).  b. Build on others_ talk in conversations by responding to the comments of others through multiple exchanges.  c. Ask questions to clear up any confusion about the topics and texts under discussion.	Explanation: Participate in class or small group lessons on when it is appropriate to use technology tools to meet personal needs.  Examples: Students will demonstrate understanding by creating an expressive, expository or functional writing piece using a digital creativity tool.  Language Arts Examples: Creating Class Rules: A Beginning to Creating Community

Performance Objectives	Curriculum Connections	Explanations and Examples
PO 2: Define cyber-bullying	Social Studies 01-S3C4-01 Identify examples of responsible citizenship in the school setting and in stories about the past and present.  Social Studies 01-S3C4-02 Describe the rights and responsibilities of citizenship: elements of fair play, good sportsmanship, and the idea of treating others the way you want to be treated importance of participation and cooperation in a classroom and community why there are rules and the consequences for violating them responsibility of voting (every vote counts)  Social Studies 01-S3C4-03 Discuss the importance of students contributing to a community (e.g., helping others, working together, cleaning up the playground.)	Explanation: Students will practice responsible and appropriate use of technology systems, software, and information.  Examples: Students participate in Digital Literacy Activities and discuss their understanding of cyber bullying.  Digital Literacy K-2
PO 3: Identify and articulate rules for the use of digital tools as defined by school	Social Studies 01-S3C4-01 Identify examples of responsible citizenship in the school setting and in	Explanation: Understand current online safety guidelines and be familiar with the

Performance Objectives	Curriculum Connections	Explanations and Examples
board policy and procedures.	stories about the past and present.	district's Acceptable Use Policy (AUP)
	Social Studies 01-S3C4-02 Describe the rights and responsibilities of citizenship: elements of fair play, good sportsmanship, and the idea of treating others the way you want to be treated importance of participation and cooperation in a classroom and community why there are rules and the consequences for violating them responsibility of voting (every vote counts)  1.SL.1 Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.  a. Follow agreed-upon rules for discussions (e.g., listening to others with care. speaking one at a time about the topics and texts under discussion).  b. Build on others_ talk in conversations by responding to the comments of others through	

Performance Objectives	Curriculum Connections	Explanations and Examples
	multiple exchanges.  c. Ask questions to clear up any confusion about the topics and texts under discussion.  1.SL.4  Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly.	
PO 4: Discuss why it may be dangerous to visit certain Internet sites.	Social Studies 01-S3C4-01 Identify examples of responsible citizenship in the school setting and in stories about the past and present.  Social Studies 01-S3C4-02 Describe the rights and responsibilities of citizenship: elements of fair play, good sportsmanship, and the idea of treating others the way you want to be treated importance of participation and cooperation in a classroom and community why there are rules and the consequences for violating them responsibility of voting (every vote counts)	Explanation: Recognize safety issues related to use of the Internet.  Examples: Internet Safety Internet Safety Game

Performance Objectives	Curriculum Connections	Explanations and Examples
	1.SL.4  Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly.	
PO 5: Recognize, discuss, and demonstrate appropriate behavior for technology use and show respect for technology equipment.	Social Studies 01-S3C4-01 Identify examples of responsible citizenship in the school setting and in stories about the past and present.  Science 01-S1C2-01 Demonstrate safe behavior and appropriate procedures (e.g., use of instruments, materials, organisms) in all science inquiry.  1.SL.3 Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood.  1.SL.4 Describe people, places, things, and events with relevant details, expressing ideas and	Explanation: Discuss why it may be dangerous to visit certain websites. Recognize safe practices when working online.

Performance Objectives	Curriculum Connections	Explanations and Examples
	feelings clearly.	



#### **Strand 5: Digital Citizenship**

#### **Concept 2: Leadership for Digital Citizenship**

Demonstrate leadership for digital citizenship.

Performance Objectives	Curriculum Connections	Explanations and Examples
No Performance Objectives		

#### **Strand 5: Digital Citizenship**

#### **Concept 3: Impact of Technology**

Develop an understanding of cultural, historical, economic and political impact of technology on individuals and society.

Performance Objectives	Curriculum Connections	Explanations and Examples
PO 1: Recognize and discuss how students and families use technology to make their lives better.	Science 01-S2C1-02 Identify how diverse people and/or cultures, past and present, have made important contributions to scientific innovations (e.g., Sally Ride [scientist].  Social Studies 01-S1C3-05 Compare the way people lived in Colonial times with how people live today (e.g., housing, food transportation, school).  1.SL.3	Explanation: Explain how technology affects people.  Examples: Identify and explain that technology is used in their daily lives to do things better or more easily such as telephone, microwave, television, cameras, and computers.

Performance Objectives	Curriculum Connections	Explanations and Examples
	Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood.  1.SL.4 Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly.	

#### **Strand 6: Technology Operations and Concepts**

This strand requires students to demonstrate a sound understanding of technology concepts, systems, and operations.

#### **Concept 1: Understanding**

Recognize, define and use technology processes, systems, and applications.

Performance Objectives	Curriculum Connections	Explanations and Examples
PO 1: Identify basic technology terms	1.RF.1 Demonstrate understanding of the organization and basic features of print.  1.RI.4 Ask and answer questions to help determine or clarify the meaning of words and phrases in a text.	Explanation: Identify and use correct technology terms. For example: mouse, file, icon, keyboard.  Examples: Students label and draw a picture that represents each technology term.

Performance Objectives	Curriculum Connections	Explanations and Examples
PO 2: Apply knowledge of technology process terminology.		Explanation: Following an order to use technology  Example: Appropriate use of log-in procedures.
PO 3: Identify technology applications for a given activity/project.	1.MD.4 Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.  MP.2 Reason abstractly and quantitatively.  MP.3 Construct viable arguments and critique the reasoning of others.  MP.4 Model with mathematics.  MP.5 Use appropriate tools strategically.  MP.6 Attend to precision.	<ul> <li>Explanation: Be able to select and use applications effectively and productively.</li> <li>Math Examples: <ul> <li>As a class, create a digital survey to collect and record and display data. Free Online Pictograph Program</li> </ul> </li> <li>In this lesson students apply what they know about comparison subtraction by constructing bar graphs and using the graphs to answer questions.  <ul> <li>Comparing Columns on a Bar Graph</li> </ul> </li> <li>In this lesson students have opportunities to identify properties and to sort, classify, organize, and display data. They solve problems and make, explain, and defend their reasoning.  <ul> <li>Grandma's Button Box</li> </ul> </li> </ul>

Performance Objectives	Curriculum Connections	Explanations and Examples
PO 4: Demonstrate knowledge of ergonomics and electrical safety when using computers and other technology.	Science 01-S1C2-01 Demonstrate safe behavior and appropriate procedures (e.g., use of instruments, materials, organisms) in all science inquiry.	Explanation: Understand that there are correct sitting, hand and fingering positions when using the keyboard.  Examples: Students will understand that they are not to handle electrical connecting devices.



#### **Strand 6: Technology Operations and Concepts**

#### **Concept 2: Applications**

Select and use applications effectively and productively.

Performance Objectives	Curriculum Connections	Explanations and Examples
PO 1: Understand keyboarding techniques when using the keyboard to type letters, numbers and special key functions.		Explanation: Students will place their left hand fingers on letters a, s, d, f, and their right hand fingers on letters j, k, l, ;. Both thumbs will use the space bar when needed. The left hand stays on the left side of the keyboard while the right hand stays on the right side of the keyboard.  Examples: Typing Web
PO 2: Compose a document that applies basic formatting.	1.W.5 With guidance and support from adults, focus on a topic, respond to questions and suggestions from peers, and add details to strengthen writing as needed.  1.W.6 With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.  1.W.8 With guidance and support from adults, recall information from experiences or	Explanation: Using a word processing program, students will write a short document that will include punctuation and capitalization. Students will search and add pictures to their writing using a clipart program.  Examples:  Word processing program  Clipart program.

Performance Objectives	Curriculum Connections	Explanations and Examples
	gather information from provided sources to answer a question.	
PO 3: Use multimedia presentation programs to create simple class assignments.	1.W.8  With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.  1.W.5  With guidance and support from adults, focus on a topic, respond to questions and suggestions from peers, and add details to strengthen writing as needed.  1.W.6  With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.	Explanation: Use a graphic organizer comparing fiction to nonfiction books.  Examples: Interactive Whiteboard Activities  Graphic Organizer
PO 4: Identify and use common navigational elements of a web page.		Explanation: Identify and use function such as links and icons.
PO 5: Demonstrate appropriate use of log-in		Explanation: The students will know how to properly log in by reading a class made

Performance Objectives	Curriculum Connections	Explanations and Examples
procedures.		chart.

### **Strand 6: Technology Operations and Concepts**

#### **Concept 3: Problem Solving**

Define problems and investigate solutions in systems and processes.

Performance Objectives	Curriculum Connections	Explanations and Examples
PO 1: Understand that there are different types of problems with technology and identify the type of problem and the steps needed to solve.	Science 01-S1C2-03 Use simple tools such as rulers, thermometers, magnifiers, and balances to collect data (U.S. customary units  MP.1 Make sense of problems and persevere in solving them.  MP.2 Reason abstractly and quantitatively.	Explanation: With teacher assistance, verify that cables are connected and power is on.



#### **Strand 6: Technology Operations and Concepts**

#### **Concept 4: Transfer of Knowledge**

Transfer current knowledge to learning of new technologies.

Performance Objectives	Curriculum Connections	Explanations and Examples
PO 1: Transfer understanding of current symbols and icons to learning new technologies.	Social Studies 01-S3C1-01 Identify national symbols and monuments that represent American democracy and values:  a. American flag b. Bald Eagle c. Statue of Liberty d. White House e. Washington Monument  1.RI.5 Know and use various text features (e.g., headings, tables of contents, glossaries, electronic menus, icons) to locate key facts or information in a text.  1.RI.6 Distinguish between information provided by pictures or other illustrations and information provided by the words in a text.  1.RI.7 Use the illustrations and details in a text to	Explanation: Recognize symbols and icons used to identify common functions, such as, arrow, hyperlinks save, printer.

describe its key ideas.	

